

- Bridge-rail and bridge-end crashes

The project team reviewed the 150 fatal crashes to determine if there were a sufficient number of crashes available to make an inference about these categories, i.e., are there enough crashes in the sample to justify the expense of expanding the Countermeasure Handbook. The Countermeasure Handbook contains an extensive amount of information about specific countermeasures; their application; and some information of their effectiveness based on past research and studies. After conducting the analyses of the 150 fatal crashes, recommendations were presented to the technical advisory committee and the conclusion was that there **were not a sufficient number of crashes in these other categories to warrant the additional expense** to add to the countermeasure evaluation manual for this project. Appendix C provides the documentation for this task and was an interim deliverable.

Table 2. Countermeasure List Used in the Regional Study

Code	Counter Measure	Category
A 1	Add/Upgrade Edgeline	Pavement Marking
A 2	Add/Upgrade Centerline	Pavement Marking
A 3	Add/Upgrade No-Passing-Zone Lines	Pavement Marking
A 4	Add Raised Pavement Markings (RPM's) to Centerline	Pavement Marking
B 1	Warning Sign	Traffic Signs
B 2	Advisory Speed Sign	Traffic Signs
B 3	Chevron Alignment Sign	Traffic Signs
B 4	Post Delineator	Traffic Signs
C 1	Geometric Realignment (Horizontal, Vertical,	Roadway Improvements
C 2	Modify Superelevation / Cross Slope	Roadway Improvements
C 3	Improve Sight Distance without Geometric	Roadway Improvements
C 4	Widen Travel Lanes / Pavement Width	Roadway Improvements
C 5	Add Turn Lane (Left/Right)	Roadway Improvements
C 6a	Improve Shoulder - Add or Widen Graded or Stabilized	Roadway Improvements
C 6b	Improve Longitudinal Shoulder - Pave Existing Graded	Roadway Improvements
C 6c	Improve Longitudinal Shoulder - Widen and Pave	Roadway Improvements
C 7	Add Rumble Strips	Roadway Improvements
C 8	Improve Roadway Access Management	Roadway Improvements
D 1	Install or Upgrade Guardrail	Roadside Improvements
D 2	Upgrade Guardrail End Treatment / Add Impact	Roadside Improvements
D 3a	Clear Zone Improvements - Widen Clear Zone	Roadside Improvements
D 3b	Clear Zone Improvements - Flatten Side Slope	Roadside Improvements
D 3c	Clear Zone Improvements - Relocate Fixed Object	Roadside Improvements
D 3d	Clear Zone Improvements - Remove Fixed Object	Roadside Improvements
D 3e	Clear Zone Improvements - Convert Object to	Roadside Improvements
D 3f	Clear Zone Improvements - Traversable Drainage	Roadside Improvements
E 1	Add Lighting (Segment)	Lighting
E 2	Add Lighting (Intersection)	Lighting
E 3	Upgrade Lighting (Segment/Intersection)	Lighting
F 1	Enforce Speed Limits	Regulations